

In the Claims:

Please amend the claims as follows:

Claims 1-4 (canceled)

5. (currently amended) A method of breeding an animal line for experimental use, comprising:

preselecting a first population of one or more conspecific animals comprising cells comprising chromosomes with telomeres of determinable lengths;

determining a statistical distribution of telomere lengths among cells of the animals of said first population; and

following the determining step, permitting only a subset of the first population having animals with a desired distribution of telomere lengths greater than a median telomere length or a subset of the first population having telomere lengths less than the median telomere length to produce offspring.

6. (original) The method of Claim 5, further comprising selecting the offspring to produce a second population, such that the statistical distribution of telomere lengths among the animals of said second population is modified compared to the distribution among the animals of said first population, wherein said second population is intended for experimental use.

Claims 7-20 (canceled)

21. (new) The method of claim 5, wherein the subset of the first population permitted to produce offspring has telomere lengths greater than the median telomere length of the first population.

22. (new) The method of claim 5, wherein the subset of the first population permitted to produce offspring has telomere lengths less than the median telomere length of the first population.

23. (new) A method of breeding an animal line for experimental use, comprising:

- preselecting a first population of one or more conspecific animals comprising cells comprising chromosomes with telomeres of determinable lengths;

- determining a statistical distribution of telomere lengths among cells of the animals of said first population; and

- following the determining step, excluding a subset of the first population from producing offspring, the subset comprising animals with telomere lengths outside of a predetermined range of telomere lengths.